## WHAT IS CLAIMED IS:

1. A recording medium cartridge comprising a recording medium and a cartridge memory,

wherein a first CRC code produced from data recorded in said recording medium is recorded in said cartridge memory in an unrewritable state.

 A recording medium cartridge comprising a recording medium and a cartridge memory,

wherein a first CRC code produced from data recorded in said recording medium and a second CRC code produced based on an address of said data are recorded in said cartridge memory in an unrewritable state.

3. A recording medium cartridge comprising a recording medium and a cartridge memory,

wherein a serial number of said cartridge memory and a third CRC code produced based on a first CRC code produced from data recorded in said recording medium are recorded in said cartridge memory in an unrewritable state.

4. A recording/reproducing apparatus for recording/reproducing a recording medium cartridge according to claim 1, the apparatus comprising:

a CRC code comparing means which compares a fourth CRC code produced from data recorded in said recording medium with a first CRC code corresponding to said data recorded in said cartridge memory; and

an authentication determining means which determines authentication of data recorded in said recording medium based on a comparison result of a CRC code comparing means.

- 5. A recording/reproducing apparatus for recording/reproducing a recording medium cartridge according to claim 2, the apparatus comprising:
- a CRC code producing means wherein when recording said second CRC code in said cartridge memory, the producing means produces a second CRC code based on said first CRC code produced from data recorded in said recording medium and an address of said data, and wherein when reproducing, the producing means produces a fifth CRC code based on said fourth CRC code produced from data recorded in said recording medium and the address of said data;
- a CRC code recording means which records the second CRC code produced by said CRC code producing means in said cartridge memory in an unrewritable state;
- a CRC code comparing means wherein when reproducing said recording medium cartridge, the comparing means compares the fifth CRC code produced by said CRC code producing means with the second CRC code recorded in said cartridge memory; and

an authentication determining means which determines authentication of the data recorded in said recording medium based on a comparison result of the CRC code comparing means.

6. A recording/reproducing apparatus for recording/reproducing a recording medium cartridge according to

claim 3, the apparatus comprising:

a CRC code producing means wherein when recording said third CRC code in said cartridge memory, the producing means produces said third CRC code based on a first CRC code produced from data recorded in said recording medium and a serial number of said cartridge memory, and wherein when reproducing, the producing means produces a sixth CRC code based on a fourth CRC code produced from data recorded in said recording medium and the serial number of said cartridge memory;

a CRC code recording means which records the third CRC code produced by said CRC code producing means in said cartridge memory in an unrewritable state;

a CRC code comparing means wherein when reproducing said recording medium cartridge, the comparing means compares the sixth CRC code produced by said CRC code producing means with the third CRC code recorded in said cartridge memory; and

an authentication determining means which determines authentication of the data recorded in said recording medium based on a comparison result of the CRC code comparing means.

7. A recording/reproducing apparatus according to claim 4:
wherein when said first CRC code and said fourth CRC code
accord in a comparison result by said CRC code comparing means,
said authentication determining means judges that recorded data
in said recording medium is authentic; and

wherein when said first CRC code and said fourth CRC code do not accord in the comparison result by said CRC code

comparing means, said authentication determining means judges that the recorded data in said recording medium is not authentic.

8. A recording/reproducing apparatus according to claim 5:
wherein when said second CRC code and said fifth CRC
code accord in a comparison result by said CRC code comparing
means, said authentication determining means judges that
recorded data in said recording medium is authentic; and

wherein when said second CRC code and said fifth CRC code do not accord in the comparison result by said CRC code comparing means, said authentication determining means judges that the recorded data in said recording medium is not authentic.

9. A recording/reproducing apparatus according to claim 6: wherein when said third CRC code and said sixth CRC code accord in a comparison result by said CRC code comparing means, said authentication determining means judges that recorded data in said recording medium is authentic; and

wherein when said third CRC code and said sixth CRC code do not accord in the comparison result by said CRC code comparing means, said authentication determining means judges that the recorded data in said recording medium is not authentic.

- 10. A recording medium cartridge according to claim 1, wherein said recording medium is a magnetic tape.
- 11. A recording medium cartridge according to claim 2, wherein said recording medium is a magnetic tape.
- 12. A recording medium cartridge according to claim 3, wherein said recording medium is a magnetic tape.

- 13. A recording medium cartridge according to claim 1, wherein said recording medium is an optical recording tape.
- 14. A recording medium cartridge according to claim 2, wherein said recording medium is an optical recording tape.
- 15. A recording medium cartridge according to claim 3, wherein said recording medium is an optical recording tape.
- 16. A recording medium cartridge according to claim 1, wherein said recording medium is a magnetic disk.
- 17. A recording medium cartridge according to claim 2, wherein said recording medium is a magnetic disk.
- 18. A recording medium cartridge according to claim 3, wherein said recording medium is a magnetic disk.
- 19. A recording medium cartridge according to claim 1, wherein said recording medium is an optical recording disk.
- 20. A recording medium cartridge according to claim 2, wherein said recording medium is an optical recording disk.